

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
2006 Quadrennial Regulatory Review –)	MB Docket No. 06-121
Review of the Commission’s Broadcast)	
Ownership Rules and Other Rules Adopted)	
Pursuant to Section 202 of the)	
Telecommunications Act of 1996		

To the Commission:

**Formal Comments from Nickolaus E. Leggett
Responding to Chairman Martin’s Ownership Proposal**

I am one of the original petitioners for the establishment of the Low Power FM (LPFM) radio broadcasting service (RM-9208 July 7, 1997 subsequently included in MM Docket 99-25). I am also a certified electronics technician (ISCET and NARTE) and an Extra Class amateur radio operator (call sign N3NL). I am an inventor holding three U.S. Patents. My latest patent is a wireless bus for digital devices and computers (U.S. Patent # 6,771,935). I have a Master of Arts degree in Political Science from the Johns Hopkins University. I am also one of the petitioners in the recent docket to establish a low power radio service on the AM broadcast band (RM-11287).

My comments are in response to the regulatory proposal submitted by Commission Chairman Kevin J. Martin.

Do We Need to Protect Newspapers?

Chairman Martin’s proposal to allow cross ownership of broadcast

stations and newspapers in larger markets is based on the concept that newspapers need protection because they are failing economically. Martin states that newspapers need to be able to buy broadcast stations in order to stay profitable and remain in business.

However, this is probably not a correct description of the economics of newspapers. Newspapers are changing, but they are not necessarily dying. Many newspapers both large and small are starting to migrate to the Internet. Today you can access the New York Times, The Washington Post, The Wall Street Journal, and most other large newspapers online on Internet web sites. In addition, smaller news letters and publications are shifting to the Internet as well.

The Internet allows newspapers to publish their text and photographic material at a much lower cost than the conventional distribution of paper copies. Even small firms and individuals can publish materials on the Internet at a very affordable cost.

Thus we are seeing the publication of paper newspapers is fading over time, while the electronic publication of news text and photographs is increasing. This is an economic change that perhaps should be allowed to proceed on its own.

If we decide that newspapers do not need protecting, the basic reason for the Chairman's proposal on media ownership goes away.

The Language of the Chairman's Proposal

The specific language of the Chairman's proposal has some problems as well. For example, his distinction between covering all of a community and covering less than all of a community does not have much value. A station covering 95 percent of a community is virtually the same as a station covering 100 percent of the community.

In addition, none of the proposed language provides an effective barrier to allowing cross ownership of newspapers and broadcast stations in smaller communities. The language allows the Commission to expand cross ownership to these communities in addition to the largest markets.

The Needs of the Largest Markets

The largest markets have a strong need for broadcasting diversity because they often have many ethnic groups that need special broadcasting services (including foreign language broadcasting). Having a single organization dominating a large market does not serve these numerous ethnic groups.

Newspapers and Experimental Broadcast Stations

In general, newspapers should not be allowed to own broadcast stations. However, newspapers that are interested in supporting experimental broadcast services should be allowed to do so. For example, newspapers could support experimental stations operating in the millimeter wave frequency bands to provide local and neighborhood services. This could

actually encourage additional media diversity in each market because of the huge broadcasting capacity of the millimeter waves. Refer to Appendix A below.

Requested Action

The Commission should reject Chairman Martin's proposal to allow cross ownership of newspapers and full-power broadcast stations.

Respectfully submitted,

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Appendix A – Using the Lighthouse Protocol for Local Broadcasting

Physical Aspects of Millimeter Wave Broadcasting

A millimeter wave installation is typically engaged in point-to-point communication using a narrow beam formed by very high gain antennas. This communication is often referred to as "pencil beam" communication.

Clearly, a fixed pencil beam is the opposite of the broad coverage desired for broadcasting service.

However, a pencil beam can be converted into an omni-directional

broadcasting system by using a rotating beam. The high-gain transmitting antenna is mounted so that it can be continuously rotated in a similar manner to a plan position indicator (PPI) radar antenna. The transmitting millimeter wave beam would "paint" the surrounding geographic area like an electronic lighthouse.

Lighthouse Protocol for Broadcasting

The neighborhood broadcasting station would transmit packets of digital program material to the broadcast receivers. Each receiver would store the packets and play the program material to the listener.

The station would use a protocol where the same set of packets would be repeated for each beam width around the points of the compass. For example, if the transmitter has a 10-degree beam width, it would transmit 36 repetitions of the packet set. Each repetition would be at a different compass direction to cover a full 360 degrees.

The radio receivers would put the packets together and play them out to the listeners. This would result in the program material being delayed somewhat from real time, but this would not be a major problem for most neighborhood broadcasting applications.

The Benefit of Limited Range

Another interesting facet of the millimeter waves is that there is

significant atmospheric absorption of the signals. This is a major problem for many potential users, but it is actually useful for neighborhood broadcasting. This absorption would prevent a neighborhood broadcaster operating in Reston, Virginia from interfering with a nearby neighborhood broadcaster in another town. Each broadcaster would be limited to a naturally enforced coverage area.